

BAGADUCE RIVER, ME.

LETTER

FROM

THE ACTING SECRETARY OF WAR,

TRANSMITTING,

WITH A LETTER FROM THE CHIEF OF ENGINEERS, REPORT ON  
PRELIMINARY EXAMINATION OF BAGADUCE RIVER, ME.

MARCH 31, 1914.—Referred to the Committee on Rivers and Harbors and ordered to  
be printed, with illustration.

WAR DEPARTMENT,  
*Washington, March 28, 1914.*

THE SPEAKER OF THE HOUSE OF REPRESENTATIVES.

SIR: I have the honor to transmit herewith a letter from the Chief  
Engineers, United States Army, of this date, together with copy  
report from Lieut. Col. W. E. Craighill, Corps of Engineers, dated  
January 27, 1914, with map, on preliminary examination of Bagaduce  
River, Me., made by him in compliance with the provisions of the  
river and harbor act approved March 4, 1913.

Very respectfully,

HENRY BRECKINRIDGE,  
*Acting Secretary of War.*

WAR DEPARTMENT,  
OFFICE OF THE CHIEF OF ENGINEERS,  
*Washington, March 28, 1914.*

From: The Chief of Engineers, United States Army.

To: The Secretary of War.

Subject: Preliminary examination of Bagaduce River, Me.

There is submitted herewith, for transmission to Congress,  
report dated January 27, 1914, with map, by Lieut. Col. W. E.  
Craighill, Corps of Engineers, on preliminary examination of Baga-  
duce River, Me., called for by the river and harbor act approved  
March 4, 1913.

2. Bagaduce River is a tidal estuary or arm extending from the eastern side of the upper part of Penobscot Bay. At a distance of about 4 miles from its mouth it divides into two branches, one extending southeastwardly and the other terminating in a shallow basin called Northern Bay. The locality was under improvement by the United States between 1888 and 1902, with a view to obtaining a channel 100 feet wide and 6 feet deep at mean low tide from Bridges Point to South Penobscot. The project depth was secured except at Winslows Island, but only for a width of 40 feet. The improvement now apparently desired is the completion of the original project. The district officer states that the desired improvement can be obtained only at a cost in excess of that justified by the amount of commerce involved, present and prospective, and he therefore expresses the opinion that the locality is not worthy of improvement by the General Government. In this view the division engineer concurs.

3. This report has been referred, as required by law, to the Board of Engineers for Rivers and Harbors, and attention is invited to the report herewith, dated March 10, 1914, concurring with the view of the district officer and division engineer.

4. After due consideration of the above-mentioned reports, I concur with the views of the district officer, the division engineer, and the Board of Engineers for Rivers and Harbors, and therefore report that the improvement by the United States of Bagaduce River, in the manner apparently desired by the interests concerned, is not deemed advisable at the present time.

DAN C. KINGMAN,  
*Chief of Engineers, United States Army.*

## REPORT OF THE BOARD OF ENGINEERS FOR RIVERS AND HARBORS

[Third indorsement.]

BOARD OF ENGINEERS FOR RIVERS AND HARBORS,  
March 10, 1914

To the CHIEF OF ENGINEERS, UNITED STATES ARMY.

1. Bagaduce River is a tidal estuary or arm of Penobscot Bay. About 4 miles from its mouth it divides into two branches. The northern one, a very shallow bay with the bottom exposed at low tide, is where improvement is desired. The range of tide is about 10 feet. The adjacent villages and tributary country have a population of about 1,500 persons, depending largely upon water transportation. The amount of commerce reported for this section of the waterway is 7,280 tons, having a value of about \$90,000.

2. The river has been improved at a cost of about \$28,000 under a project which provided for a channel leading to South Penobscot village, having a depth of 6 feet and a width of 100 feet. The depth was secured except at Winslows Island, but for a width of 40 feet only. It is stated that the improvement now apparently desired is that the original project shall be carried to completion, so that 6 feet at mean low tide may be had up to the wharf at South Penobscot. No appropriation for this locality has been made since 1902.

3. The district officer states that the improvement desired can be obtained only at a cost in excess of that justified by the amount of commerce involved, present or prospective, and therefore it is his opinion that the locality is not worthy of improvement by the General Government. In this view the division engineer concurs.

4. Interested parties were advised of the unfavorable report of the district officer and given an opportunity of submitting their views to the board, but no communications on the subject have been received.

5. While better navigation facilities would be of advantage and benefit to the community at and adjacent to South Penobscot village, the present commerce to be affected is small in amount and value, and there is nothing to indicate any material increase if the improvement is carried out. Believing that the improvement desired would not result in commensurate benefits, the board concurs with the district officer and the division engineer and reports that in its opinion it is not advisable for the United States to undertake the work.

6. In compliance with law, the board reports that there are no questions of terminal facilities, water power, or other related subjects which could be coordinated with the suggested improvement in such manner as to render the work advisable in the interests of commerce and navigation.

For the board:

W. M. BLACK,  
*Colonel, Corps of Engineers,  
Senior Member of the Board.*

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PRELIMINARY EXAMINATION OF BAGADUCE RIVER, ME.

UNITED STATES ENGINEER OFFICE,  
*Portland, Me., January 27, 1914.*

From: The District Engineer Officer.

To: The Chief of Engineers, United States Army  
(Through Division Engineer).

Subject: Preliminary examination of Bagaduce River, Me.

1. The river and harbor act approved March 4, 1913, directs a preliminary examination of Bagaduce River, Me.

2. Bagaduce River is a tidal estuary or arm extending from the eastern side of the upper part of Penobscot Bay, Me. Castine, a town of some importance, is located on the northerly side of the mouth of Bagaduce River, where it widens and is given the name of Castine Harbor. The river, so-called, extends northeastwardly for about 4 miles from its mouth. It then branches. One branch flows southeastwardly and the other terminates almost at once at a broadened end called Northern Bay, a very shallow basin of about 700 acres area. This bay is almost entirely exposed at low tide, the flats ranging from the level of low tide to about 4 feet above that level. The bottom is for the most part clay with some ledge and very many bowlders. The mean tidal range in Northern Bay approaches 10 feet. The depth at Bridges Point, at the mouth of the bay, is about 14 feet at mean low tide, though for most of the river from thence to the mouth the depth is very much greater and the width fairly good. The existence of extensive basins produces rather strong

tidal currents in the narrowest parts of the stream, but not sufficiently so to greatly interfere with navigation. A reconnoissance map accompanies this report, on which have been indicated the present approximate depths in the channel which had been previously dredged.

3. On the shores of Northern Bay, which is the portion of the river specifically covered by this examination, there are two small villages—Penobscot village on the northeasterly shore, and South Penobscot village on the southeasterly shore. These, with parts of adjacent towns have an aggregate population of about 1,500 persons who are served more or less directly by the transportation facilities afforded by Bagaduce River. Communication to regular transportation lines at other places is by team to West Penobscot, where a steamboat touches, or by stage to Bucksport, a distance of about 14 miles, where the Maine Central Railroad may be reached. Castine, at the mouth of the river, has steamboat service and can be reached by water via Bagaduce River, or by road, the latter distance being about 10 miles. There are eight stores at the two villages above named, two brickyards, two sawmills, a concern making knit goods and one making barrel hoops. Other business consists in the agricultural products of the region. The annual water borne traffic from this portion of the Bagaduce River is about as follows:

	Short tons
Lumber.....	2, 570
Bricks.....	1, 500
Kiln wood.....	1, 110
Hay, grain, and flour.....	1, 030
Potatoes.....	900
General merchandise.....	100
Fertilizer.....	60
Yarn and knit goods.....	10
Total.....	7, 280

The estimated value of these commodities is about \$90,000.

4. The reports on a preliminary examination and survey, made as a result of an order in the river and harbor act of August 5, 1886 were printed in House Executive Document No. 157, Fiftieth Congress, first session. A project was suggested for excavating a channel 100 feet wide, and 6 feet deep at mean low tide, for a distance of about 4,000 feet from Bridges Point to South Penobscot. The estimated cost was \$45,000, in addition to which an estimate was submitted for removing about 125 cubic yards of rock at Johnsons Narrows in the southerly branch, at an estimated cost of \$1,875. By act of August 11, 1888, Congress appropriated \$3,000 for this improvement and from that date to 1902 made six additional appropriations (one of \$4,000, three of \$5,000 each, and two of \$3,000 each) amounting in all to \$28,000. The work was commenced, but the amounts available at any one time were so small that but little could be accomplished. After expenditure of the last appropriation the result was that the channel had been excavated its entire proposed length, but for only 40 feet width. The project depth of 6 feet had been obtained except at Winslows Island, about midway of the length of the channel, where only about 4 feet at mean low tide had been secured. In the Annual Report for 1912 it was stated that as no appropriation has been made for this work since 1902 further

improvement of the locality should be dependent on a reexamination showing such work to be advisable at this time. It is understood that the order for the new examination in the river and harbor act of 1913 is the result of the above statement in the Annual Report.

In 1892 a report on a preliminary examination of the South Fork of the Bagaduce River, Me., made under the requirements of the river and harbor act of that year, was submitted and printed in House Executive Document No. 17, Fifty-second Congress, second session. The report was adverse.

In 1897 a survey was made under the provisions of the river and harbor act of June 3, 1896, for a channel leading up to Penobscot village, on the northeastern shore of the bay, and the report was printed in House Document No. 144, Fifty-fifth Congress, second session. The report was accompanied by a map. The improvement considered at that time was the dredging of a channel from the 6-foot contour to Penobscot village, 100 feet wide and 6 feet deep at mean low tide. The length was about 2,600 feet and the estimate of cost was \$45,700. This project also failed to receive favorable recommendation.

5. It appears upon developing the situation that what is now desired by the people on the easterly shore of Northern Bay is that the original project shall be carried to completion so that 6 feet at mean low tide may be had up to the wharf at South Penobscot and thus better water transportation for that locality, as well as for Penobscot village, which is about 1 mile distant, and for the country back of these settlements. It is claimed that could this be secured regular steamboat transportation could be established, and that parties stand ready to undertake it. It is further stated that rates are high because vessels are obliged to go out about half laden because of lack of sufficient depth, although there is ample cargo to fill them. Many passengers and much goods would go in and out via such a channel, which now have to be hauled from 4 to 5 miles or more to other points. The extent or quantity of passenger and freight business which is obliged to seek other terminals is not definitely stated, and perhaps can not be. Neither have I been able to secure a satisfactory statement as to what annual saving would result were the additional facilities provided. The population involved, however, and the amount of business already done via Bagaduce River will give a good general idea of the relative importance of the locality from a business point of view, and will enable the formation of an opinion as to the extent of the benefit which would be secured were the improvement completed as originally planned.

6. The wharves at Penobscot and South Penobscot are ample to supply all business existing or immediately prospective, and there appears to be no lack of accommodation for anyone desiring to use the wharves. One of those at South Penobscot is open to use by the public on common terms and at very reasonable rates.

7. There are no questions connected with any project at present suggested, in the way of water power development or land reclamation, which could be advanced as instruments for lessening the cost to the Government. A project was suggested some two years ago by private parties to throw a dam across the Bagaduce River below Northern Bay, with a view to developing and utilizing power, but the expense would be considerable, navigation would have to be

provided for, and at the present time it is not thought that the outlook would by any means justify the Government in considering such a scheme.

8. The people who are asking for completion of the improvement in Bagaduce River are energetic and enterprising within the scope of the possibilities of the environment, and the business they are doing is worthy of encouragement and of better facilities for transportation, but unfortunately the physical conditions at that locality are such that betterment can be obtained only at a cost so far in excess of that justified by the amount of commerce, either present or prospective, involved, that I feel obliged to give it as my opinion that the locality is not worthy of improvement by the General Government.

W. E. CRAIGHILL,  
*Lieut. Col., Corps of Engineers.*

[First indorsement.]

OFFICE DIVISION ENGINEER, NORTHEAST DIVISION,  
*New York City, January 30, 1914.*

To the CHIEF OF ENGINEERS, UNITED STATES ARMY.

Forwarded, concurring in the opinion of the district engineer officer.

FREDERIC V. ABBOT,  
*Colonel, Corps of Engineers.*

[For Report of the Board of Engineers for Rivers and Harbors, see page 2.]



VICINITY OF BAGADUCE RIVER, ME.  
From U.S.C. & G. Survey Chart No. 8.  
SCALE, 1 TO 400,000



NORTHERN BAY

Flots. Dry at Low Tide.

North  
Magnetic

BAGADUCE RIVER, MAINE,  
CHANNEL TO SOUTH PENOBSCOT.  
Shore line, low water line and curves  
of depth, from map of 1893.  
Soundings, corrections and additions  
made and sketched during examination  
of Nov. 20, 1913, made under direction of  
LIEUT. COL. W. E. CRAIGHILL, CORPS OF ENGRS, U.S. ARMY,  
By E. M. Hunt, Junr Engr'r.  
Soundings approximately located and  
referred to Mean Low Water.

SCALE, 1 TO 4000.

0 100 200 300 400 500 600 700 800 900 1000 1100 1200 Feet

NOTE.  
Channel dredged 1893 to 1906,  
indicated by shaded area.

U.S. Engineer Office,  
Portland, Me., Jan. 27, 1914.  
Approved:

*W. E. Craighill*  
Lieut. Col. Corps of Engrs, U.S. Army.  
To accompany report of this date, to  
the Chief of Engineers, War Dept.

SOUTH PENOBSCOT  
VILLAGE

Telephone Ex.  
and Library

Backstreet

Store

Stable

P.O.

Stable

Stable

Stable

Stable

Stable

Stable

Stable

